

# HOME & GARDEN INFORMATION CENTER

## Live Oak

The live oak (*Quercus virginiana*) is the principal evergreen oak in South Carolina. Although it is adapted to all of South Carolina, it favors conditions along the coast, where it grows wild. The full development of the live oak in this state can be expected only within the warm, humid environment of its natural range. It tolerates cold extremes up through the Piedmont (not the mountains), but will grow more slowly and may suffer from ice storm damage.



Live oaks  
Karen Russ, ©HGIC, Clemson Extension

### Mature Height/Spread

Live oak is rounded and wide-spreading, growing 40 to 80 feet tall and 60 to 100 feet wide. In the forest it stands erect, growing 100 feet tall, but in open landscapes the sprawling horizontal branches arch to the ground and form a broad, rounded canopy.

### Growth Rate

This tree grows moderately fast in youth, producing 2 to 2½ feet of growth per year if properly located and maintained. Trees grown outside the coastal

region will grow more slowly. The growth rate also slows with age. One of the longest-lived oaks, it may live 200 to 300 years.

### Ornamental Features

The live oak is probably best known for its massive horizontal limbs that give old trees their majestic character. The trunk can grow to more than six feet in diameter. The leaves remain intact through the winter, then yellow and drop in spring as new leaves expand. Trees growing further inland, however, become semi-evergreen, losing some leaves in fall and winter. The waxy leaves are resistant to salt spray.



Live oak leaves and acorn caps  
Karen Russ, ©HGIC, Clemson Extension

The small (1 inch) acorns are very dark when ripe, and are primary food for many wildlife species along the coast. They are produced in clusters of one to five.

### Problems

Live oak is susceptible to leaf blister, a fungal gall that disfigures leaves but does no appreciable harm.

Several insect galls are also found on live oak. No control is available. Oak wilt is a serious fungal disease that can kill infected trees within a year or two of infection. This disease occurs in only six counties in South Carolina: Chesterfield, Kershaw, Lancaster, Lee, Darlington and Barnwell. For more information on problems of oak, refer to the fact sheet [HGIC 2006, \*Oak Diseases & Insect Pests\*](#).

## Landscape Use

Live oaks are reminiscent of the Old South, especially when planted along avenues or drives leading to old plantations. Although used extensively for street tree plantings, in time the roots will lift sidewalks or streets if planted too close. It will do well as a lawn specimen provided it is given plenty of space.

Although it responds best to plentiful moisture in well-drained, sandy soils, it tolerates drier, more compacted sites. Once established, it is drought-resistant. It prefers sun but tolerates more shade than other oaks because its leaves function throughout winter.

Pruning is only necessary to develop a strong branch structure early in the life of the tree. It should be trained with a central leader. Eliminate young multiple trunks and branches. Prune in mid-to-late summer to avoid oak wilt disease.

## Cultivars & Varieties

Cultivars are not available. Almost any seedling live oak makes a good tree.

**Note:** Chemical control of diseases and insects on large trees is usually not feasible since adequate coverage of the foliage with a pesticide cannot be achieved.

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Prepared by Debbie Shaughnessy, HGIC Information Specialist, and Bob Polomski, Extension Consumer Horticulturist, Clemson University. (New 05/99. Images added 11/06.)

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